

Policy and Syllabus for GSCI 104: 3D Printing

JMU 3-SPACE Classroom

Instructor: Laura Taalman, Professor in the Department of Mathematics and Statistics
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Class site: www.geekhaus.com/3space
Meetings: Mondays 2:30pm-4:30pm in the JMU 3-SPACE classroom (Burruss 349)
Textbook: The internet!

Course description

3D printing is an additive manufacturing process whereby objects are built up from plastic filament, liquid resin, layers of powder, or even bio-compatible and edible materials. Desktop 3D printing is today's printing press, putting rapid prototyping, customizable products, and individualized medical appliances in reach of the general public. Literacy in basic 3D modeling and manufacturing is an essential skill for future STEM success in this country. In this course students will learn how to be "makers" by using various types of 3D modeling software, printing actual physical objects that they have designed and modeled themselves, and participating in educational outreach in the university and the community.

For a description of how this course meets both JMU GSCI Guidelines and JMU Cluster Three Learning Objectives, please see www.geekhaus.com/3space/classes.

Grades

Grades in this one-credit course will be based on attendance, participation, a portfolio of 3D prints, 3D design and modeling, blog posts, presentations, outreach activities, and a final project. Your printed projects will require a significant amount of time in the JMU 3-SPACE classroom outside of the scheduled class times.

Schedule

Monday 1/13	Safety, basic print on the Afinia, starting Tinkercad	
Monday 1/20	<< MLK Day >>	
Monday 1/27	First designs, platform leveling, filament swaps	
Monday 2/3	Class discussion of first drafts of final project proposals and outreach proposals	
Monday 2/10	Class	
Monday 2/17	Class	
Monday 2/24	Class	
Monday 3/3	Class	
Monday 3/10	<< Spring break >>	
Monday 3/24	Class	Monday 4/21 << No class >>
Monday 3/31	Class	Monday 4/28 Last day before final presentations
Monday 4/7	Class	Monday 4/28 First round of final presentations
Monday 4/14	Class	*Friday* 5/2 Second round of final presentations